

1
2 **CLAIMS**

3 1. At least one computer-readable medium having computer executable
4 instructions that provide a method for transferring computer-readable objects
5 across a remote boundary, the method comprising:

6 decomposing an object of a first type into an hierarchy of at least one sub-
7 component based on a list of known object types, each sub-component comprising
8 a known object associated with one of the known object types;

9 serializing the known objects into a serialized package; and

10 transmitting the serialized package to a remote entity.

11 2. The computer-readable medium of claim 1, wherein the list identifies
12 the first type as one of the known object types.

13 3. The computer-readable medium of claim 1, wherein at least one sub-
14 component comprises an unknown object having a type unidentified within the
15 list.

16 4. The computer-readable medium of claim 3, wherein decomposing an
17 object further comprises decomposing the unknown object into another level of
18 sub-components based on the list.

19 5. The computer-readable medium of claim 1, wherein a first process on
20 a system transmits the serialized package and the remote entity comprises another
21 process on the system.

22 6. The computer-readable medium of claim 1, wherein a first process on
23 a system transmits the serialized package and the remote entity comprises another
24 process on another system.
25

1 7. The computer-readable medium of claim 1, wherein a first
2 application domain executing within a process transmits the serialized package
3 and the remote entity comprises another application domain within the process.

4 8. The computer-readable medium of claim 1, wherein the hierarchy
5 comprises a property bag.

6 9. The computer-readable medium of claim 8, wherein the property bag
7 comprises a hash table.

8 10. The computer-readable medium of claim 9, wherein a key for each
9 entry in the hash table comprises a name for the sub-component associated with
10 the entry.

11 11. The computer-readable medium of claim 8, wherein the property
12 bag comprises a plurality of entries, each entry being associated with one of the
13 sub-components and having a first field for storing a name associated with the
14 sub-component, a second field for storing a value associated with the sub-
15 component, and a third field for storing a type associated with the sub-component.

16 12. The computer-readable medium of claim 1, further comprising
17 negotiating the known object types identified within list by receiving a version
18 number of a first list available to a first process, comparing the version number to
19 another version number of a second list available to the remote entity, and
20 determining the list based on the comparison.

21 13. The computer-readable medium of claim 1, further comprising
22 negotiating the list by accepting a plurality of object types received from a first
23 process, the accepted object types becoming known object types identified within
24 the list.

25

1 **14.** The computer-readable medium of claim 1, further comprising
2 negotiating the list by receiving an identifier for a file and having the list include
3 object types identified within the file.

4 **15.** The computer-readable medium of claim 1, further comprising
5 limiting the hierarchy of sub-components by specifying a pre-determined depth for
6 the hierarchy, wherein decomposing the object comprises decomposing the object
7 to the pre-determined depth.

8 **16.** The computer-readable medium of claim 1, further comprising
9 limiting the hierarchy of sub-components by defining a property set that identifies
10 individual properties of the object, wherein decomposing the object comprises
11 decomposing the identified individual properties of the object.

12 **17.** The computer-readable medium of claim 1, further comprising
13 limiting the hierarchy of sub-components by identifying a specified property
14 within the object, wherein decomposing the object comprises decomposing the
15 specified property.

16 **18.** The computer-readable medium of claim 1, further comprising
17 limiting the hierarchy of sub-components by specifying a pre-determined number
18 that limits the known objects that are serialized into the serialized package by the
19 number.
20
21
22
23
24
25

1 **19.** At least one computer-readable medium having computer
2 executable instructions that provide a method for receiving a package representing
3 a computer-readable object transmitted across a remote boundary, the method
4 comprising:

5 receiving a serialized package from a remote entity;

6 identifying a hierarchy of sub-components, the hierarchy representing an
7 object of a first type;

8 for each sub-component:

9 identifying a type associated with the sub-component;

10 if the type is identified within a list of known object types,
11 instantiating an object of the type and populating at least one property of
12 the object with information obtained from within the serialized package.

13 **20.** The computer-readable medium of claim 19, wherein the list
14 includes the first type as one of the known object types.

15 **21.** The computer-readable medium of claim 19, wherein the at least
16 one sub-component comprises an unknown object having a type unidentified
17 within the list.

18 **22.** The computer-readable medium of claim 19, wherein a first process
19 on a system receives the serialized package and the remote entity comprises
20 another process on the system.

21 **23.** The computer-readable medium of claim 19, wherein a first process
22 on a system receives the serialized package and the remote entity comprises
23 another process on another system.
24
25

1 **24.** The computer-readable medium of claim 19, wherein a first
2 application domain executing within a process receives the serialized package and
3 the remote entity comprises another application domain within the process.

4 **25.** The computer-readable medium of claim 19, wherein the serialized
5 package comprises an XML document.
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 **26.** A system that communicates objects across a remote boundary,
2 comprising:

3 a processor;

4 a memory, the memory being allocated for a plurality of computer-
5 executable instructions which are loaded into the memory for execution by the
6 processor, the computer-executable instructions providing a method for
7 communicating objects across the remote boundary, the method comprising:

8 decomposing an object of a first type into an hierarchy of at least one sub-
9 component based on a list of known object types, each sub-component comprising
10 a known object associated with one of the known object types;

11 serializing the known objects into a serialized package; and

12 transmitting the serialized package to a remote entity.

13 **27.** The system of claim 26, wherein a first process on a system
14 transmits the serialized package and the remote entity comprises another process
15 on the system.

16 **28.** The system of claim 26, further comprising:

17 receiving the serialized package from the remote entity;

18 identifying the hierarchy of sub-components, the hierarchy representing the
19 object of the first type; and

20 for each identified sub-component:

21 identifying a type associated with the sub-component; and

22 if the type is identified within the list of known object types,
23 instantiating an object of the type and populating at least one property of
24 the object with information obtained from within the serialized package.
25